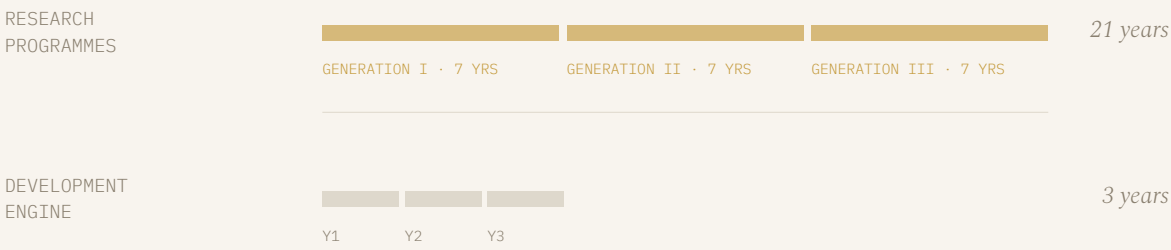
INTERNAL ARCHITECTURE DOCUMENT · JULY 2026

*BioFund*

# Two *Clocks.*

Why BioFund separates Research from Development — by philosophy, not just org chart.



THE DISTINCTION NOBODY MAKES

## The distinction *nobody makes*

Most organizations that work in science use the phrase “R&D” as though it describes a single thing — a department, a budget line, a unified activity. The compression is convenient. It is also, we believe, one of the structural reasons so much promising science stalls on the way to becoming something real.

Research and development are not the same activity at different stages of maturity. They are different organisms entirely — with different time horizons, different success criteria, different internal cultures, and different relationships to uncertainty. When they share a budget line and a management structure, one quietly dominates the other. Development wins — because development has deliverables, and science that cannot show near-term output is the first thing to go when pressure appears.

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Research gets pressured by development timelines. Development gets romanticized by research ambition. BioFund separates them by philosophy, not just org chart.

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We do not have an R&D programme. We have Research Programmes — plural, named, patient, and running on their own clock — and a Development engine built to translate what the research eventually produces. Keeping them apart is not an administrative convenience. It is the architecture that makes everything else possible.

RESEARCH PROGRAMMES: THE LONG CLOCK

## Research Programmes: *the long clock*

BioFund's Research Programmes run on a 7-year horizon — three generations of seven, a 21-year arc that matches the actual timescale on which cancer biology yields answers. These are not projects with defined deliverables. They are named, funded commitments to a question — the kind of commitment that only a structure with no exit date can make.

Three Research Programmes are currently active.

### TME Research

TUMOUR MICROENVIRONMENT · GENERATIONAL

The tumour microenvironment as a therapeutic target — understanding the conditions that allow cancer to persist, evade, and adapt, and identifying the mechanisms that could disrupt that persistence. This is foundational science. It does not operate on OKRs.

### Cell Therapy Programme

NK CELLS · STEM CELL MODALITIES · GENERATIONAL

NK cells, stem cell modalities, and the emerging engineering approaches that give the immune system tools its own evolution has not yet provided. A generational programme in the truest sense — the science here is years from clinical translation, which is precisely why we are funding it now.

### Companion Animal Oncology Programme

ONEHEALTH · IN COLLABORATION

Companion animals develop cancers spontaneously — with biology that mirrors human pathology far more faithfully than engineered models permit. This programme is both genuine veterinary care and the most honest translational science available. Those who called it a detour were not wrong that it was different. They were wrong that different meant slower.

*What these three programmes share: patience as a design feature. They are not expected to feed the Development pipeline on any particular schedule. They feed it when they are ready — and when they are ready, the Development engine is built to receive them.*

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DEVELOPMENT: THE SHORT CLOCK

## Development: *the short clock*

The Development engine operates on a fundamentally different rhythm: three-year cycles, structured as three consecutive annual OKRs. It is not slow by any measure — but it is accountable in a way the Research Programmes deliberately are not. Deliverables. Milestones. Go/no-go decisions that can be stated plainly.

#### THE TOOLBOX

BioFund owns — or has built access to — every tool the Development engine requires: computational discovery platforms, cell engineering infrastructure, UFP500° ultra-fine particle processing, AI-guided optimization, and wet lab capability. We do not depend on external partners to run the engine. The Toolbox is ours. That is the point.

THE PROCESS

We control the translational sequence: from computational candidate to engineered asset to organoid screening to parallel validation across species. Each stage connects to the next. Each stage has defined outputs. This is where the OneHealth methodology becomes operational — not a philosophy stated in a document, but a process that generates regulatory-ready data packages from a single programme running across companion animals and human models simultaneously.

THE TWO TRACKS

Development runs in parallel on two fundamentally different therapeutic philosophies — and this distinction is not cosmetic.

CURATIVE

### Biologics

biodeep.ai platform

Complex molecules — biosimilars, checkpoint modulators, engineered therapeutic proteins — designed to intervene in active disease. It addresses cancer in the patient who already has it.

PREVENTIVE

### Bioactives

UFP500° · micronutri.ai platform

Whole botanical compounds, processed to ultra-fine particle scale by UFP500°, formulated to reduce the biological burden that precedes disease. It addresses the conditions that allow cancer to emerge in the first place.

These two tracks do not compete. They are not redundant. They are an acknowledgment that treating disease and preventing disease are equally serious acts — and that an organization genuinely committed to both, rather than using prevention as a marketing footnote, looks different from anything currently operating at this scale.

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ONEHEALTH: THE METHODOLOGY THAT HOLDS IT TOGETHER

## OneHealth: *the methodology that holds it together*

The parallel validation methodology — companion animals and humans, simultaneously — is the piece most frequently misunderstood.

We have been told, more than once, that human health and animal health must be kept separate. The regulatory pathways are different. The markets are different. The professional cultures are distinct. All of this is true. None of it is a reason to build an artificial wall between

two bodies of science studying the same biology.

Companion animals do not merely tolerate the same diseases we do. They develop them spontaneously — in real tumour microenvironments, with real immune responses, at ages and timescales we can observe. A therapy validated in a dog with a spontaneous tumour has earned its data in a way no forced model can replicate. And that dog is a patient. It is being treated because it needs treatment. The translational value is not the reason we treat it — it is what we learn along the way.

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This is what OneHealth means in practice: not a metaphor about interconnected ecosystems, but a concrete methodology in which companion animal oncology generates human-relevant data as a natural consequence of doing right by the animal.

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*The science and the conscience of the work agree. That is usually a sign an approach is sound.*

THE FEED: HOW THE PIPELINE IS SUPPLIED

## The feed: *how the pipeline is supplied*

The Development pipeline is supplied from two directions.

Internally, the Research Programmes eventually produce candidates — not on a schedule, but when the science justifies it. Those candidates enter the pipeline already carrying years of foundational work. They do not arrive raw. They arrive de-risked in the ways that only patient, long-horizon research can de-risk.

Externally, long-term collaborations — with academic institutions, research hospitals, veterinary science departments, and select industry partners — supply the pipeline with candidates, capabilities, and data that BioFund's internal programmes do not yet cover. These are not transactional relationships. They are structural commitments designed to last as long as the science requires.

*The directionality matters. Research feeds the pipeline. The pipeline feeds Development. Development produces de-risked candidates with complete data packages, ready for the next stage of translation. The sequence runs one way, and it runs by design.*

# Why this *architecture works*

The conventional answer to “how do you manage research and development?” is to put them in the same organization and hope the tension is creative. Sometimes it is. More often, the short clock colonizes the long clock — because short-term accountability is visible and long-term accountability is not.

BioFund has built the alternative. Two distinct organisms, each with its own time horizon, its own success criteria, its own relationship to uncertainty. The Research Programmes are free to take the time the science requires. The Development engine is built to move with urgency when urgency is warranted. They communicate through the pipeline — not a metaphor, but a designed architecture for translating what one organism produces into the inputs the other needs.

This is what allows BioFund to hold prevention and cure simultaneously, to hold companion animal and human health in the same programme, and to hold generational science alongside annual deliverables — without any of these commitments undermining the others.

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It works because the structure was designed for the work. Not the work designed for the structure.

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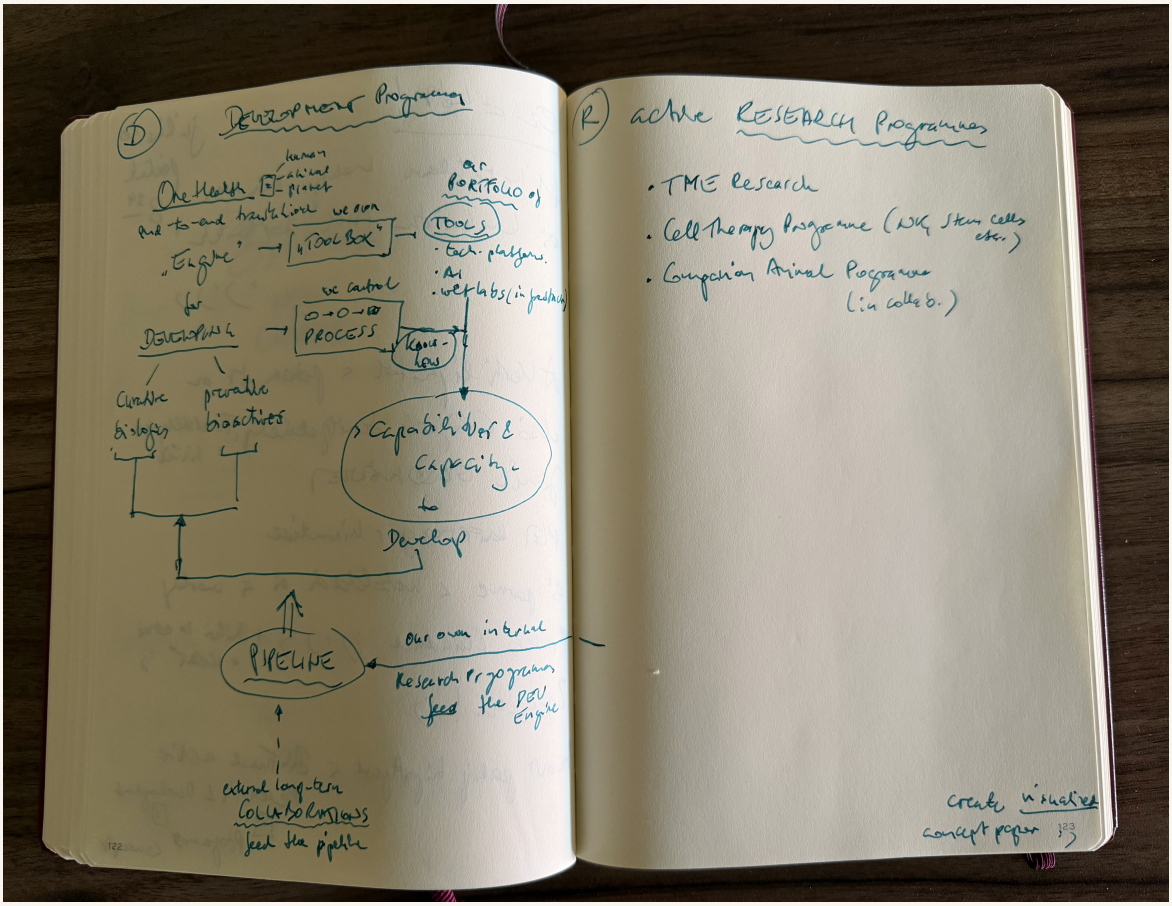
# Where the architecture *was named.*




The original sketch. Where the architecture was named. p.122–123 · July 2026

*BioFund · Internal Architecture Document · July 2026*

*"Curing and preventing cancer together.*
*Because no one can do it alone."*